

What is claimed is:

1. An optical glass wherein an amount of change in refractive index ( $\Delta n$ : difference in refractive index between a state before radiation and a state after radiation) caused by radiation of laser beam at wavelength of 351nm having average output power of 0.43W, pulse repetition rate of 5kHz and pulse width of 400ns for one hour is 5 ppm or below..

2. An optical glass as defined in claim 1 comprising a fluorine ingredient and/or a titanium oxide ingredient and/or an arsenic oxide ingredient.

3. An optical glass as defined in claim 2 comprising, in mass %, a total amount of 0.1 - 45% of F in one or more fluorides as the fluorine ingredient and/or 0.001 - 0.5% of  $\text{TiO}_2$  as the titanium oxide ingredient and/or 0.001 - 1% of  $\text{As}_2\text{O}_3$  as the arsenic oxide ingredient.

4. An optical glass as defined in claim 3 comprising, in mass %,
 

$\text{SiO}_2$	40 - 70%
$\text{PbO}$	14 - 50%

$\text{Na}_2\text{O}$  and/or  $\text{K}_2\text{O}$  in the total amount of 8 - 17%

where

$\text{Na}_2\text{O}$	0 - 14%
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and

$\text{K}_2\text{O}$	0 - 15%
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$\text{B}_2\text{O}_3$	0 - 5%
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$\text{As}_2\text{O}_3$	0 - 1%
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$\text{Sb}_2\text{O}_3$	0 - 1%
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$\text{TiO}_2$	0 - 0.2% and
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fluoride or fluorides substituting for the above oxide or oxides partially or entirely, a total amount of F contained in the fluoride or fluorides being 0 - 2%.

5. An optical glass as defined in claim 3 comprising, in mass %,

$\text{SiO}_2$	30 - 70%
$\text{B}_2\text{O}_3$	3 - 20%
$\text{Al}_2\text{O}_3$	0 - 6%
$\text{Li}_2\text{O}$	0 - 5%

$\text{Na}_2\text{O} + \text{K}_2\text{O} + \text{BaO} + \text{ZnO}$  in the total amount of 10 - 45%

where

$\text{Na}_2\text{O}$	0 - 13%
$\text{K}_2\text{O}$	0 - 12%
$\text{BaO}$	0 - 42%

and

$\text{ZnO}$	0 - 7%
$\text{PbO}$	0 - 2%
$\text{TiO}_2$	0 - 0.5%
$\text{As}_2\text{O}_3$	0 - 1%
$\text{Sb}_2\text{O}_3$	0 - 1% and

fluoride or fluorides substituting for the above oxide or oxides partially or entirely, a total amount of F contained in the fluoride or fluorides being 0 - 11%.

6. An optical glass as defined in claim 4 comprising, in mass %,

$\text{Li}_2\text{O}$	0 - 2%
$\text{CaO}$	0 - 2%
$\text{SrO}$	0 - 2%
$\text{BaO}$	0 - 5%



0 - 2%

the total amount of one or more of the  $\text{Li}_2\text{O}$ ,  $\text{CaO}$ ,  $\text{SrO}$ ,  $\text{BaO}$  and  $\text{Al}_2\text{O}_3$  ingredients being 5% or below.

7. An optical glass as defined in claim 5 comprising, in mass %,



0 - 2%



0 - 2%



0 - 2%

the total amount of one or more of the  $\text{CaO}$ ,  $\text{SrO}$  and  $\text{ZrO}_2$  ingredients being 2% or below.

8. An optical glass as defined in claim 3 comprising, mass %,



4 - 39%



0 - 9%



0 - 5%



0 - 6%



0 - 9%



0 - 10%

$\text{Y}_2\text{O}_3 + \text{La}_2\text{O}_3 + \text{Gd}_2\text{O}_3 + \text{Yb}_2\text{O}_3$  in the total amount of 0 - 20%

Where



0 - 10%



0 - 10%



0 - 20%

and



0 - 10%



0 - 0.1%



0 - 1%



0 - 0.5%



0 - 0.5%

$\text{AlF}_3$	0 · 29%
$\text{MgF}_2$	0 · 8%
$\text{CaF}_2$	0 · 27%
$\text{SrF}_2$	0 · 27%
$\text{BaF}_2$	10 · 47%
$\text{YF}_3$	0 · 10%
$\text{LaF}_3$	0 · 10%
$\text{GdF}_3$	0 · 10%
$\text{LiF}$	0 · 3%
$\text{NaF}$	0 · 1%
$\text{KF}$	0 · 1%

the total amount of F in one or more of the fluorides being 10 · 45% and  
the total amount of one or more of  $\text{MgF}_2$ ,  $\text{CaF}_2$ ,  $\text{SrF}_2$  and  $\text{BaF}_2$  being 30 · 70%.